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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,288	12/28/2001	You Sung Kang	P67500US0	3114

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WASHINGTON, DC 20006

EXAMINER

ANYA, CHARLES E

ART UNIT	PAPER NUMBER
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2194

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/029,288

Applicant(s)

KANG ET AL.

Examiner

Charles E. Anya

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3/MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,7,9,10 and 13-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,7,9,10 and 13-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/28/01.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1,3,4,7,9,10 and 13-16 are pending in this application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1,4,7,10 and 14 are rejected under 35 U.S.C. 103(a) a. being unpatentable over applicant's admitted prior art (hereinafter referred to as AAPA pages 2-3) in view of U.S. Pat. No. 5,923,759 to Lee.**

4. As to claim 1, AAPA teaches a method of setting a communication environment between a mobile terminal and a smart card using a layered architecture of a protocol stack, the system comprising: if the mobile terminal provides power to the smart card, sending an answer-to-reset signal from the smart card to the to the mobile terminal (page 2 lines 8 - 14); determining whether or not the received answer-to-reset signal complies with an answer-to-reset signal pattern required by the mobile terminal (page 2 lines 16 - 21); if the received answer-to-reset signal complies with an answer-to-reset signal pattern required by the mobile terminal, analyzing the answer-to-reset signal transferred from the smart card to establish a communication environment (Step S104

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page 2 lines 20 - 24); if the optimum communication environment is established, sending a command for requesting to open a logical channel to the smart card/opening the logical channel in response to the command for requesting to open the logical channel received from the mobile terminal, and sending a signal responding to the command to the mobile terminal (Step S105 page 2 lines 26 - 28, page 3 lines 1 - 2); and opening the logical channel to be used in the application to secure a communication channel between the smart card and the mobile terminal (Step S106 page 3 lines 7 - 8); wherein if the optimum communication environment is not established, the mobile terminal sends a protocol/parameter selecting request to the smart card and the smart card responds if the protocol and parameter are supported otherwise, the smart card enters a standby mode to receive a reset command (page 2 lines 20 - 28) and wherein the answer-to-reset signal transferred from the smart card comprises at least one of a communication speed and a communication protocol, which are supported by the smart card itself (page 2 lines 13 - 15).

AAPA is silent with reference to an application layer including a plurality of applications and transmission layer including a plurality of communication environments capable of supporting the plurality of application of the application layer/a smart card that supports a plurality of applications and a plurality of communication speed and protocols that corresponds to each application.

Lee teaches an application layer including a plurality of applications (Application Program 400 Col. 8 Ln. 35 - 48, "Numerous different types application programs..." Col. 9 Ln. 1 - 13) and transmission layer including a plurality of communication

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environments capable of supporting the plurality of application of the application layer/a smart card that supports a plurality of applications (CAPI 410 Col. 8 Ln. 22 – 34, Col. 9 Ln. 14 – 32) and a plurality of communication speed and protocols that corresponds to each application (“...different protocols...” Col. 9 Ln. 14 – 32).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of AAPA with the teaching of Lee because the teaching of Montgomery improve the system of AAPA by providing an application interface that allows applications to remain the same for different card manufacturers or chip operating system and therefore enabling an application to remains transparent to changes of a card or system (Lee Col. 9 Ln. 30 – 32).

5. As to claim 4, Lee teaches the method as claimed in claim 1, wherein the smart card and the mobile terminal comprise a transmission layer for transmitting and receiving a data, and an application layer for processing the data, respectively (CAPI Col. 5 Ln. 29 – 40, Col. 8 Ln. 22 – 48, Col. 9 Ln. 14 – 32).

6. As to claims 7 and 14, see the rejection of claim 1 above.

7. As to claim 10, Lee teaches the program as claim in claim 7, wherein the smart card and the mobile terminal comprise a transmission layer for transmitting and receiving a data, an application for processing the data, respectively (CAPI Col. 5 Ln. 29 – 40, Col. 8 Ln. 22 – 48, Col. 9 Ln. 14 – 32); wherein the application layer of the smart

card and the mobile terminal includes a plurality of applications (Application Program 400 Col. 8 Ln. 35 – 48, “Numerous different types application programs...” Col. 9 Ln. 1 – 13), and the transmission layer of the smart card and the mobile terminal includes a plurality of communication environments capable of supporting the plurality of applications of the application layer; and the transmission layer and the application layer are independently embodied to each other, so that one application supported by a plurality of communication protocols and one communication protocol supports a plurality of applications (figure 4, Col. 8 Ln. 22 – 48).

8. Claims 3,9,13,15 and 16 are rejected under 35 U.S.C. 103(a) a. being unpatentable over applicant's admitted prior art (hereinafter referred to as AAPA pages 2-3) in view of U.S. Pat. No. 5,923,759 to Lee as applied to claim 1, and further in view of U.S. Pub. No. 20010024006 A1 to Fu et al.

9. As to claim 3, Lee and AAPA are silent with reference to the method as claimed in claim 1, in the determining step, if he received answer-to-reset signal does not comply with an answer-to-reset signal pattern required by the mobile terminal, the method further comprising the steps of: determining whether or not a process of a protocol and parameters selection is executed in the mobile terminal; if the mobile terminal executes the process of the protocol and parameters selections and sending a command for requesting to select the protocol and parameters to the smart card

Fu teaches the method as claimed in claim 1, in the determining step, if he received answer-to-reset signal does not comply with an answer-to-reset signal pattern required by the mobile terminal (figure 4 Step 402 page 4 paragraph 0071), the method further comprising the steps of: determining whether or not a process of a protocol and parameters selection is executed in the mobile terminal (figure 4 Step 404 page 4 paragraphs 0071/0072); if the mobile terminal executes the process of the protocol and parameters selections, sending a command for requesting to select the protocol and parameters to the smart card (figure 4 Step 406/410 page 4 paragraph 0072).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Lee and AAPA with teaching of Fu because the teaching of Fu improve the system of Lee and AAPA by providing applications related sub-layer that masks the difference between API sets within the smart card related layer and details of the smart card (Fu page 5 paragraph 0098).

10. As to claim 9, see the rejection of claim 3 above.

11. As to claim 13, see the rejection of claims 1,3 and 10 above.

12. As to claim 15, Fu teaches the method as claimed in claim 1, in the determining step, if he received answer-to-reset signal does not comply with an answer-to-reset signal pattern required by the mobile terminal (figure 4 Step 402 page 4 paragraph 0071), the method further comprising: determining whether the process of the protocol

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and parameters selections is supported by the smart card, which receives the command for requesting to select the protocol and parameters from the mobile terminal (figure 4 Step 406/410 page 4 paragraph 0072); and if the smart card supports the protocol and parameters selection, sending a signal responding to the command for requesting to select the protocol and parameters to the mobile terminal to ensure the communication channel between the smart card and the mobile terminal (figure 4 Step 406-410 page 4 paragraph 0072).

13. As to claim 16, see the rejection of claim 15 above.

Response to Arguments

Applicant's arguments with respect to claims 1,3,4,7,9,10 and 13-16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

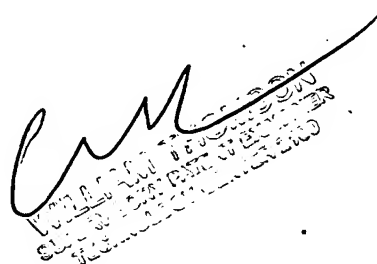
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Anya whose telephone number is (571) 272-3757. The examiner can normally be reached on M-F (8:30-6:00) First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, An Meng-Ai can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Charles E Anya
Examiner
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A handwritten signature in black ink is written over a circular official stamp. The signature is cursive and appears to read 'Charles E Anya'. The stamp is partially obscured by the signature but contains some legible text, including 'U.S. PATENT AND TRADEMARK OFFICE' and 'ART UNIT 2194'.